

AMENDMENTS TO THE CLAIMS

This listing of claims will replace all prior versions and listings of claims in the application:

LISTING OF CLAIMS:

- 1-2. (canceled).
3. (previously presented): The insulation varnish according to claim 9, in which the copolymer is obtained by adding 10% to 50% by weight of alkoxy silane.
4. (currently amended): The insulation varnish according to claim 9, in which the alkoxy silane is selected from the group consisting of tetraalkoxysilanes and trialkoxysilanes.
5. (currently amended): The insulation varnish according to claim 9, in which the mineral filler is selected from the group consisting of oxides and nitrides of B, Al, Ti, Zn, Zr, Cr, and Fe.
6. (previously presented): The insulation varnish according to claim 9, in which the mineral filler is selected from silicates.
7. (canceled).
8. (previously presented): The insulation varnish according to claim 9, in which the mineral filler has a specific surface area greater than 40 m²/g.
9. (currently amended): An insulation varnish for a winding wire, the varnish comprising a composition comprising:

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- a) a copolymer obtained from a thermoplastic or thermosetting resin selected from the group consisting of polyamide imide (PAI), polyester imide (PEI), polyimide (PI), polyester (PE), polyurethane (PU), polyvinylacetal (PVA), and mixtures thereof, and at least one alkoxy silane; and
- b) 2 to 20% by weight of a mineral filler selected from compounds the group consisting of oxides and nitrides of B, Al, Ti, Zn, Zr, Cr, and Fe, and silicates, and mixtures thereof,

the insulation varnish enabling the winding wire to withstand partial discharges;

wherein the winding wire is able to withstand peak-to-peak voltages of up to 3 kV at a frequency of up to 20 kHz with rise times of up to 1 kV/μs at a temperature of up to 180 °C.

10. (currently amended): A method of manufacturing an insulation varnish in accordance with claim 9, the method comprising the following steps: copolymerizing the thermoplastic or thermosetting resin with at least one alkoxy silane; adding [[a]] the mineral filler selected from compounds of B, Al, Ti, Zn, Zr, Cr, Fe, silicates, and mixtures thereof; and homogenizing.

11. (currently amended): A method according to claim 10, in which synthesis copolymerizing is performed in a solvent selected from the group consisting of ortho-cresyl, meta-cresyl, para-cresyl, cresylic acid, N-methylpyrrolidone, dimethylacetamide (DMAC), and mixtures thereof.

12. (currently amended): A method according to claim 10, in which the reaction is performed in the presence of a catalyst selected from the group consisting of pTSA, dibutyltin, and a polysiloxane.

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13. (previously presented): A method of manufacturing a winding wire, the method comprising the following steps: applying the insulation varnish in accordance with claim 9 on the wire; and setting the varnish.

14. (currently amended): A winding wire obtained by a method comprising applying an insulation varnish on the wire and setting the varnish,

wherein the varnish enables the winding wire to withstand partial discharges and comprises a composition comprising:

- a) a copolymer obtained from a thermoplastic or thermosetting resin selected from the group consisting of polyamide imide (PAI), polyester imide (PEI), polyimide (PI), polyester (PE), polyurethane (PU), polyvinylacetal (PVA), and mixtures thereof, and at least one alkoxy silane; and
- b) 2 to 20% by weight of a mineral filler selected from compounds the group consisting of oxides and nitrides of B, Al, Ti, Zn, Zr, Cr, and Fe, and silicates, and mixtures thereof;

and wherein the winding wire is able to withstand peak-to-peak voltages of up to 3 kV at a frequency of up to 20 kHz with rise times of up to 1 kV/μs at a temperature of up to 180 °C.

15. (previously presented): A coil comprising a conductor wire covered in the insulation varnish in accordance with claim 9.

16. (previously presented): The insulation varnish according to claim 3, in which the copolymer is obtained by adding 20% to 40% by weight of alkoxy silane.

17. (previously presented): The insulation varnish according to claim 4, in which the tetraalkoxy silane is tetraethoxysilane (TEOS) and the trialkoxy silane is selected from the group consisting of trimethoxysilane and aminopropyl-trimethoxysilane.

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18. (previously presented): The insulation varnish according to claim 5, in which the mineral filler is titanium dioxide.

19. (previously presented): The insulation varnish according to claim 6, in which the silicate is selected from the group consisting of clays, nanocomposite clays, and mica.

20. (previously presented): The insulation varnish according to claim 7, comprising 5% to 15% by weight of mineral filler.

21-23. (canceled).

24. (previously presented): The winding wire according to claim 14, in which the copolymer is obtained by adding 10% to 50% by weight of alkoxy silane.

25. (currently amended): The winding wire according to claim 14, in which the alkoxy silane is selected from the group consisting of tetraalkoxy silanes and trialkoxy silanes.

26. (currently amended): The winding wire according to claim 14, in which the mineral filler is selected from the group consisting of oxides and nitrides of B, Al, Ti, Zn, Zr, Cr, and Fe.

27. (previously presented): The winding wire according to claim 14, in which the mineral filler is selected from silicates.

28. (canceled).

29. (previously presented): The winding wire according to claim 14, in which the mineral filler has a specific surface area greater than 40 m²/g.

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30. (previously presented): The winding wire according to claim 24, in which the copolymer is obtained by adding 20% to 40% by weight of alkoxy silane.

31. (previously presented): The winding wire according to claim 25, in which the tetraalkoxysilane is tetraethoxysilane (TEOS) and the trialkoxysilane is selected from the group consisting of trimethoxysilane and aminopropyl-trimethoxysilane.

32. (previously presented): The winding wire according to claim 26, in which the mineral filler is titanium dioxide.

33. (previously presented): The winding wire according to claim 27, in which the silicate is selected from the group consisting of clays, nanocomposite clays, and mica.

34. (previously presented): The winding wire according to claim 28, comprising 5% to 15% by weight of mineral filler.